Mark Gordon, Governor

Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.





Todd Parfitt, Director

July 18, 2022

Ms. Monica Morales Acting Director Air and Radiation Division EPA Region 8 1595 Wynkoop St. Denver, CO 80202

Re: Initial Notification of Air Quality Division 2021 Ozone Wildfire Exceptional Events

Dear Ms. Morales,

Attached is an initial notification of a wildfire smoke exceptional event that occurred in the western regions of the United States during the time frame of July 11, 2021 through August 22, 2021 that led to several exceedances of the 8-hour 2015 Ozone National Ambient Air Quality Standard (NAAQS). While the wildfire smoke plume was regional in nature and was observable throughout the state during the event, it did not cause all monitors exceed the Ozone NAAQS throughout the event. Smoke from the wildfires in California, Colorado, Idaho, Montana, Oregon, Washington, Wyoming, and British Columbia impacted and resulted in sixty-two (62) recorded exceedances of the United States Environmental Protection Agency's (US-EPA) 8-hour Ozone NAAQS. The Wyoming Department of Environmental Quality – Air Quality Division (WDEQ-AQD) has evaluated the initial notification and circumstances surrounding the event and represents that the event should be evaluated by the US-EPA Region 8 as a wildfire exceptional event.

WDEQ-AQD is submitting an "Initial Notification of Potential Exceptional Event" and flagging the data in EPA's Air Quality System (AQS) as per 40 CFR §50.14(c) (2) (i) as a result of elevated Ozone concentrations. The WDEQ-AQD requests that the Administrator determines that this event meets the provisions outlined in 40 CFR 50.14 (a) (1) (F) as a regulatory determination made on a case-by-case basis. The WDEQ-AQD considers this event to be of regulatory significance because of the WDEQ-AQD's reliance on ambient data to determine compliance with the NAAQS at state run State and Local Air Monitoring Stations (SLAMS) and Special Purpose Monitors (SPM). Additionally, these data are used in WDEQ-AQD's permitting process as well as by the US-EPA and third party interests in evaluating Wyoming's air quality. These reasons demonstrate the need to accurately portray anthropogenic versus nonanthropogenic or "exceptional" air quality issues to the public by means of excluding exceptional event concurred data from the data record.

It is also the WDEQ-AQD's stance that any exceedance caused by an exceptional event is significant and that it is important to demonstrate to the public the difference between exceedances that are anthropogenic versus those that are non-anthropogenic or exceptional in nature. Properly characterizing these exceedances in the public record and providing scientific evidence supporting the claim of exceptionality is essential to our shared role of serving the public. These data are used by the public, researchers, and other agencies to make scientific, public health, and policy decisions. These data must be properly flagged and concurred with in the US-EPA's AQS in order for those data to be handled correctly and reflect the monitor design values. Without the critical step of determining concurrence, data is often misused by these entities to support decisions that may have consequences on a local or national level. Additionally, the numerous exceedances of the 8-hour Ozone NAAQS will affect future years design values, with the potential of a NAAQS violation.

Due to the above mentioned factors, the WDEQ-AQD considers these exceedances to meet the criteria of regulatory significance and requests that the Administrator make a determination under 40 CFR 50.14 (a) (1) (F) that the US-EPA will agree to review an Exceptional Event demonstration for this event.

Please contact Darla J. Potter, AQRM Program Manager, with questions at 307-777-7380.

Sincerely,

Darla J. Potter

Air Quality Resource Program Manager

Air Quality Division

Darla Kotter

Cc: Mark R. Gagen, Air Pollution Monitoring Program Manager, AQD

EE Initial Notification Summary Information

Ozone Exceedance

Submitting Agency: State of Wyoming – Air Quality Division

Agency Contact: Darla Potter Date Submitted: 7/18/2022

Applicable NAAQS: 2015 ozone - 8-hour 0.070 ppm

Affected Regulatory Decision¹: F) Case by case basis – see cover letter

(for classification decisions, specify level of the classification with/without EE concurrence)

Area Name/Designation Status: Attainment/ Unclassifiable Design Value Period (list three year period): 2019-2021

(where there are multiple relevant design value periods, summarize separately)

A) Information specific to each flagged monitor day that may be submitted to EPA in support of the affected regulatory decision listed above

Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other ²)	AQS Flag	Monitor AQS ID (and POC)	Monitor Name	Exceedance Concentration (ppm)	Notes (e.g. event name, links to other events)
7/11/2021	Wildfire	IT	56-009-0010 POC-1	Converse County	0.073	Wildfire Exceptional Event Demonstration July-August 2021
7/11/2021	Wildfire	IT	56-019-0004 POC-1	Johnson County	0.072	Wildfire Exceptional Event Demonstration July-August 2021
7/11/2021	Wildfire	IT	56-005-0123 POC-1	Thunder Basin	0.078	Wildfire Exceptional Event Demonstration July-August 2021
7/12/2021	Wildfire	IT	56-021-0100 POC-1	Cheyenne NCore	0.076	Wildfire Exceptional Event Demonstration July-August 2021
7/12/2021	Wildfire	IT	56-001-0011 POC-1	Laramie I-80 Mobile	0.076	Wildfire Exceptional Event Demonstration July-August 2021

7/14/2021	Wildfire	IT	56-037-0300 POC-1	Moxa Arch	0.071	Wildfire Exceptional Event Demonstration July-August 2021
7/15/2021	Wildfire	IT	56-005-0123 POC-1	Thunder Basin	0.071	Wildfire Exceptional Event Demonstration July-August 2021
7/17/2021	Wildfire	IT	56-005-0123 POC-1	Thunder Basin	0.074	Wildfire Exceptional Event Demonstration July-August 2021
7/18/2021	Wildfire	IT	56-021-0100 POC-1	Cheyenne NCore	0.073	Wildfire Exceptional Event Demonstration July-August 2021
7/18/2021	Wildfire	IT	56-001-0011 POC-1	Laramie I-80 Mobile	0.071	Wildfire Exceptional Event Demonstration July-August 2021
7/19/2021	Wildfire	IT	56-021-0100 POC-1	Cheyenne NCore	0.075	Wildfire Exceptional Event Demonstration July-August 2021
7/19/2021	Wildfire	IT	56-019-0004 POC-1	Johnson County	0.074	Wildfire Exceptional Event Demonstration July-August 2021
7/19/2021	Wildfire	IT	56-001-0011 POC-1	Laramie I-80 Mobile	0.073	Wildfire Exceptional Event Demonstration July-August 2021
7/19/2021	Wildfire	IT	56-005-0123 POC-1	Thunder Basin	0.073	Wildfire Exceptional Event Demonstration July-August 2021
7/20/2021	Wildfire	IT	56-021-0100 POC-1	Cheyenne NCore	0.075	Wildfire Exceptional Event Demonstration July-August 2021

7/24/2021	Wildfire	IT	56-025-0100 POC-1	Casper Gaseous	0.071	Wildfire Exceptional Event Demonstration July-August 2021
7/24/2021	Wildfire	IT	56-023-0004 POC-1	Kemmerer Mobile	0.075	Wildfire Exceptional Event Demonstration July-August 2021
7/25/2021	Wildfire	IT	56-035-0700 POC-1	Big Piney	0.071	Wildfire Exceptional Event Demonstration July-August 2021
7/25/2021	Wildfire	IT	56-035-0099 POC-1	Boulder	0.071	Wildfire Exceptional Event Demonstration July-August 2021
7/25/2021	Wildfire	IT	56-021-0100 POC-1	Cheyenne NCore	0.071	Wildfire Exceptional Event Demonstration July-August 2021
7/25/2021	Wildfire	IT	56-035-0100 POC-1	Daniel South	0.072	Wildfire Exceptional Event Demonstration July-August 2021
7/25/2021	Wildfire	IT	56-035-1002 POC-1	Juel Spring	0.073	Wildfire Exceptional Event Demonstration July-August 2021
7/25/2021	Wildfire	IT	56-023-0004 POC-1	Kemmerer Mobile	0.072	Wildfire Exceptional Event Demonstration July-August 2021
7/25/2021	Wildfire	IT	56-037-0300 POC-1	Moxa Arch	0.073	Wildfire Exceptional Event Demonstration July-August 2021
7/25/2021	Wildfire	IT	56-035-0101 POC-1	Pinedale Gaseous	0.072	Wildfire Exceptional Event Demonstration July-August 2021
7/25/2021	Wildfire	IT	56-013-0099 POC-1	South Pass	0.074	Wildfire Exceptional Event Demonstration July-August 2021

7/25/2021	Wildfire	IT	56-005-0123 POC-1	Thunder Basin	0.075	Wildfire Exceptional Event Demonstration July-August 2021
7/26/2021	Wildfire	IT	56-035-0700 POC-1	Big Piney	0.076	Wildfire Exceptional Event Demonstration July-August 2021
7/26/2021	Wildfire	IT	56-035-0099 POC-1	Boulder	0.075	Wildfire Exceptional Event Demonstration July-August 2021
7/26/2021	Wildfire	IT	56-025-0100 POC-1	Casper Gaseous	0.074	Wildfire Exceptional Event Demonstration July-August 2021
7/26/2021	Wildfire	IT	56-035-0100 POC-1	Daniel South	0.079	Wildfire Exceptional Event Demonstration July-August 2021
7/26/2021	Wildfire	IT	56-019-0004 POC-1	Johnson County	0.071	Wildfire Exceptional Event Demonstration July-August 2021
7/26/2021	Wildfire	IT	56-035-1002 POC-1	Juel Spring	0.078	Wildfire Exceptional Event Demonstration July-August 2021
7/26/2021	Wildfire	IT	56-023-0004 POC-1	Kemmerer Mobile	0.078	Wildfire Exceptional Event Demonstration July-August 2021
7/26/2021	Wildfire	IT	56-037-0300 POC-1	Moxa Arch	0.073	Wildfire Exceptional Event Demonstration July-August 2021
7/26/2021	Wildfire	IT	56-035-0101 POC-1	Pinedale Gaseous	0.076	Wildfire Exceptional Event Demonstration July-August 2021
7/26/2021	Wildfire	IT	56-013-0099 POC-1	South Pass	0.078	Wildfire Exceptional Event Demonstration July-August 2021

7/26/2021	Wildfire	IT	56-005-0123 POC-1	Thunder Basin	0.074	Wildfire Exceptional Event Demonstration July-August 2021
7/26/2021	Wildfire	IT	56-037-0200 POC-1	Wamsutter	0.076	Wildfire Exceptional Event Demonstration July-August 2021
7/27/2021	Wildfire	IT	56-025-0100 POC-1	Casper Gaseous	0.071	Wildfire Exceptional Event Demonstration July-August 2021
7/27/2021	Wildfire	IT	56-021-0100 POC-1	Cheyenne NCore	0.074	Wildfire Exceptional Event Demonstration July-August 2021
7/27/2021	Wildfire	IT	56-035-0100 POC-1	Daniel South	0.071	Wildfire Exceptional Event Demonstration July-August 2021
7/27/2021	Wildfire	IT	56-019-0004 POC-1	Johnson County	0.074	Wildfire Exceptional Event Demonstration July-August 2021
7/27/2021	Wildfire	IT	56-001-0011 POC-1	Laramie I-80 Mobile	0.072	Wildfire Exceptional Event Demonstration July-August 2021
7/27/2021	Wildfire	IT	56-005-0123 POC-1	Thunder Basin	0.076	Wildfire Exceptional Event Demonstration July-August 2021
7/28/2021	Wildfire	IT	56-021-0100 POC-1	Cheyenne NCore	0.075	Wildfire Exceptional Event Demonstration July-August 2021
7/28/2021	Wildfire	IT	56-009-0010 POC-1	Converse County	0.071	Wildfire Exceptional Event Demonstration July-August 2021
7/28/2021	Wildfire	IT	56-005-0123 POC-1	Thunder Basin	0.073	Wildfire Exceptional Event Demonstration July-August 2021

7/29/2021	Wildfire	IT	56-037-0200 POC-1	Wamsutter	0.071	Wildfire Exceptional Event Demonstration July-August 2021
7/30/2021	Wildfire	IT	56-021-0100 POC-1	Cheyenne NCore	0.072	Wildfire Exceptional Event Demonstration July-August 2021
7/31/2021	Wildfire	IT	56-019-0004 POC-1	Johnson County	0.071	Wildfire Exceptional Event Demonstration July-August 2021
8/1/2021	Wildfire	IT	56-021-0100 POC-1	Cheyenne NCore	0.073	Wildfire Exceptional Event Demonstration July-August 2021
8/1/2021	Wildfire	IT	56-019-0004 POC-1	Johnson County	0.074	Wildfire Exceptional Event Demonstration July-August 2021
8/1/2021	Wildfire	IT	56-001-0011 POC-1	Laramie I-80 Mobile	0.071	Wildfire Exceptional Event Demonstration July-August 2021
8/2/2021	Wildfire	IT	56-025-0100 POC-1	Casper Gaseous	0.076	Wildfire Exceptional Event Demonstration July-August 2021
8/2/2021	Wildfire	IT	56-021-0100 POC-1	Cheyenne NCore	0.078	Wildfire Exceptional Event Demonstration July-August 2021
8/2/2021	Wildfire	IT	56-009-0010 POC-1	Converse County	0.076	Wildfire Exceptional Event Demonstration July-August 2021
8/2/2021	Wildfire	IT	56-019-0004 POC-1	Johnson County	0.078	Wildfire Exceptional Event Demonstration July-August 2021
8/2/2021	Wildfire	IT	56-005-0123 POC-1	Thunder Basin	0.077	Wildfire Exceptional Event Demonstration July-August 2021

8/8/2021	Wildfire	IT	56-013-0099 POC-1	South Pass	0.079	Wildfire Exceptional Event Demonstration July-August 2021
8/16/2021	Wildfire	IT	56-005-0123 POC-1	Thunder Basin	0.071	Wildfire Exceptional Event Demonstration July-August 2021
8/22/2021	Wildfire	IT	56-013-0099 POC-1	South Pass	0.073	Wildfire Exceptional Event Demonstration July-August 2021

¹ designation, classification, attainment determination, attainment date extension, or finding of SIP inadequacy leading to SIP call

B) Exceeding Monitors Information

(listing of all monitors in the planning area that exceeded due to this Exceptional Event, regardless of operating agency, and regardless of whether or not they are impacted by other EEs)

Monitor (AQS ID and POC)	Design Value (<u>without</u> EPA concurrence on any of the events listed in table A above) 3 Year Ave. Annual 4th High (ppm)	Design Value (<u>with</u> EPA concurrence on all events listed in table A above) 3 Year Ave. Annual 4th High (ppm)
Laramie I-80 Mobile* (56-001-0011 POC-1) 7/12/2021, 7/18/2021, 7/19/2021, 7/27/2021, 8/1/2021	0.071	0.067
Thunder Basin (56-005-0123 POC-1) 7/11/2021, 7/15/2021, 7/17/2021, 7/19/2021, 7/25/2021, 7/26/2021, 7/27/2021, 7/28/2021, 8/2/2021, 8/16/2021	0.064	0.062
Converse County (56-009-0010 POC-1) 7/11/2021, 7/28/2021, 8/2/2021	0.066	0.066
South Pass (56-013-0099 POC-1) 7/25/2021, 7/26/2021, 8/8/2021, 8/22/2021	0.068	0.066
Johnson County (56-019-0004 POC-1) 7/11/2021, 7/19/2021, 7/26/2021, 7/27/2021, 7/31/2021, 8/1/2021, 8/2/2021	0.066	0.064
Cheyenne NCore (56-021-0100 POC-1) 7/12/2021, 7/18/2021, 7/19/2021, 7/20/2021, 7/25/2021, 7/27/2021, 7/28/2021, 7/30/2021, 8/1/2021, 8/2/2021	0.064	0.063
Kemmerer Mobile* (56-023-0004 POC-1) 7/24/2021, 7/25/2021, 7/26/2021	0.070	0.065
Casper Gaseous (56-025-0100 POC-1) 7/24/2021, 7/26/2021, 7/27/2021, 8/2/2021	0.065	0.064

Boulder (56-035-0099 POC-1) 7/25/2021, 7/26/2021	0.074	0.073
Daniel South (56-035-0100 POC-1) 7/25/2021, 7/26/2021, 7/27/2021	0.067	0.065
Pinedale Gaseous (56-035-0101 POC-1) 7/25/2021, 7/26/2021	0.065	0.064
Big Piney (56-035-0700 POC-1) 7/25/2021, 7/26/2021	0.065	0.065
Juel Spring (56-035-1002 POC-1) 7/25/2021, 7/26/2021	0.066	0.066
Wamsutter (56-037-0200 POC-1) 7/26/2021, 7/29/2021	0.065	0.065
Moxa Arch (56-037-0300 POC-1) 7/14/2021, 7/25/2021, 7/26/2021	0.066	0.065

^{*}AQD Mobile Gaseous Stations are typically deployed for no more than 12 months and usually do not possess a complete calendar year of data.

C) Summary of Maximum Design Value (DV) Monitor Information (Effect of EPA Concurrence on Maximum Design Value Monitor Determination) (Two highest values from Table B)

	Design Value	Design Value Monitor	Comment
Maximum DV monitor (AQS ID and POC) without EPA concurrence on any of the events listed in table A above	0.074	Boulder (56-035-0099 POC-1)	
Maximum DV monitor (AQS ID and POC) with EPA concurrence on all events listed in table A above	0.073	Boulder (56-035-0099 POC-1)	
Maximum DV monitor (AQS ID and POC) without EPA concurrence on any of the events listed in table A above	0.068	South Pass (56-013-0099 POC-1)	
Maximum DV monitor (AQS ID and POC) with EPA concurrence on all events listed in table A above	0.066	South Pass (56-013-0099 POC-1)	

D) List of any monitors (AQS ID and POC) within planning area with invalid design values (e.g. due to data incompleteness)

¹ designation, classification, attainment determination, attainment date extension, or finding of SIP inadequacy leading to SIP call

² Provide additional information for types of event described as "other"

Laramie I-80 Mobile (56-001-0011 POC-1) 7/12/2021, 7/18/2021, 7/19/2021, 7/27/2021, 8/1/2021 Kemmerer Mobile (56-023-0004 POC-1) 7/24/2021, 7/25/2021, 7/26/2021